



Public Notice

US Army Corps
of Engineers

Sacramento District

1325 J Street

Sacramento, CA 95814-2922

Number: 200650219

Date: September 15, 2006

Comments Due: October 15, 2006

SUBJECT: The U.S. Army Corps of Engineers, Sacramento District, (Corps) is evaluating a permit application to construct the Las Vegas Wash Channel Improvement project, which would result in impacts to approximately 5.6 acres of waters of the United States, including wetlands, in or adjacent to the Las Vegas Wash. This notice is to inform interested parties of the proposed activity and to solicit comments. This notice may also be viewed at the Corps web site at <http://www.spk.usace.army.mil/regulatory.html>.

AUTHORITY: This application is being evaluated under Section 404 of the Clean Water Act for the discharge of dredged or fill material in waters of the United States.

APPLICANT: Clark County Water Reclamation District
5857 East Flamingo Road
Las Vegas, Nevada 89122
Telephone: 702-434-6600

LOCATION: The project site is located in Las Vegas in Sections 14, 15, 22 and 23, Township 21 South, Range 62 East, Mount Diablo Meridian, Clark County, Nevada, and can be seen on the Las Vegas SE 7.5 minute USGS Topographic Quadrangle.

PROJECT DESCRIPTION: The applicant is proposing to make improvements to a section of the Las Vegas Wash located on their property and to the access road for Advanced Wastewater Treatment Plant (AWT). Based on the available information, the overall project purpose to channelize Las Vegas Wash in the project area to contain the 100-year flood flows within the area, thereby removing approximately 33 acres of land from the floodplain. Channelizing the Wash would reduce maintenance efforts associated with flooding by stabilizing the banks and reducing erosion in this reach of the Wash and eliminate flooding of the AWT access road for the majority of flood events that historically prevented the crossing of the Wash. The applicant believes there is a need to increase available land for potential future plant expansion, to enhance security by providing more restricted access to Clark County Water Reclamation District (CCWRD) property and facilities at the AWT access road, to provide increased flood protection for the AWT access road and better all-weather access across the Las Vegas Wash, to reduce the maintenance required after flood events, and to prevent the erosion and degradation from the head-cutting that is occurring in that area within the Las Vegas Wash. The attached drawings provide additional project details.

The proposed project will result in the availability of approximately 33 acres of land for future CCWRD infrastructure. This land will no longer be located in the floodplain as a result of the containment of 100-year flood flows within the channel. This is important to the future of

wastewater treatment as the cost of undeveloped land and the population of the Las Vegas Valley both continue to increase.

The area west of the proposed improvements will be 10 feet higher than the adjacent ground surface. This will function as a security barrier and provide a better line of sight for security personnel. Additionally, dense stands of tamarisk (invasive plant species) will be cleared throughout the majority of the project area increasing visibility across the property. Native riparian species will be planted with significantly less dense stands than the existing tamarisk.

The proposed improvements involve relocating the eastern end of the AWT Access Road approximately 500 feet south. The three existing sets of Reinforced Concrete Box (RCB) culverts under the AWT Access Road will be removed. The realignment of the AWT Access Road will accomplish the following site needs: 1) it will provide access across the Las Vegas Wash, 2) it will act as a grade control structure in the channel and thereby prevent channel degradation or head-cutting, and 3) the access road will act as a hydraulic control structure. In a 100-year flood event, approximately 10,200 cubic feet per second (cfs) of flow will spill over the access road (and floodplain to the west) and approximately 9,100 cfs will flow under the road through (6) 25-foot by 6-foot RCBs. This flow split is necessary in order to maintain the pre-project flow split at the CCWRD south property line and ensure that the proposed design does not cause any adverse impacts to the downstream channel and floodplain stability. During low flow conditions (up to 5,000 cfs) the roadway will not be overtopped and all the flow will pass under the road through the culverts. Flows greater than 5,000 cfs will flow into the adjacent floodplain to the west, which includes the proposed riparian/wetland mitigation area.

Channel improvements begin just north of the Flamingo Road alignment with a riprap lined channel 310 feet wide and minimum of 5 feet deep. The proposed channel will transition into a concrete lined, 157.5-foot wide, rectangular channel just upstream of the proposed AWT Access Road. A 45-foot wide by 1.5 feet deep concrete low flow channel is proposed through the entire length of the rip-rap lined channel, and will merge into the concrete section of the main channel. The slope of the low flow channel, up to the fully concrete lined channel will be 0.2 percent. The slope will increase to 2 percent through the concrete lined section of the channel. The concrete channel section will continue down and under the newly proposed alignment of the AWT Access Road by way of the RCB culverts. Immediately downstream of the culverts, the concrete channel continues with a slope of 2 percent for 15 feet and then drops vertically 8.76 feet. The drop in the invert is proposed to ensure a stable downstream channel slope. The structure is designed as a straight drop structure with impact blocks. Downstream of the drop structure, the main channel will be concrete lined and is proposed to be flat for approximately 135 feet. Downstream of the concrete lined section, the channel is proposed to be riprap lined with a slope of 0.2 percent and will gradually transition into the top width of the existing low flow channel over a distance of approximately 1,100 feet. After which the channel will be graded into a riprap lined v-ditch with side-slopes of 2:1 until just upstream of the existing headcut at the Upper Diversion Weir. The slope of the channel downstream of the concrete lined section is proposed to be 0.2 percent.

In order to help maintain the flow split at the new access road, two concrete levees are proposed between the channel and the west overbank. Both levees will be approximately 12 feet in height with a crest width of approximately 14 feet and entirely concrete lined, as will the areas between the Central Plant Outfall and the proposed AWT Access Road. The first levee will be located between the old and new AWT Access Road alignments. The second levee will start just

downstream of the new access road and continue all the way down until the end of the Central Plant Outfall. Both are designed to prevent the flows that spill over the access road (and floodplain to the west) from returning into the main channel until further downstream. The top of both the levees will also function as access roads. The top of the upstream levee will tie into the concrete access road running along the western side of the proposed upstream channel; while the downstream levee will provide access to both the Central Plant Outfall and the downstream end of the proposed channel.

Approximately 30.81 acres located to the west of the Las Vegas Wash improvements will be used for the placement of fill material. Dredged material from the Las Vegas Wash will be used to raise the ground surface elevation in this area so that this area can be used for future plant expansion needs. No waters of the U.S. or adjacent wetlands are located in this area and thus no waters of the U.S. or adjacent wetlands would be impacted by this area.

Construction is anticipated to commence late summer 2007 and take approximately 14 months to complete.

None of the work for this project has been completed. However, recent improvements to a section of the Las Vegas Wash within the project site were permitted and completed in 2003 by John Laing Homes for the Desert Inn Master Plan Community project. Approximately 0.5 acres of the channel and bank, from the CCWRD's northern property line to the upstream side of the AWT Access Road, were dredged and filled with riprap in accordance with USACE permit no. 200250007. However, since these improvements alone will not fully contain the 100-year flood flows, the proposed CCWRD channel improvements are needed in this area.

ADDITIONAL INFORMATION:

Environmental Setting. The project alignment is located on CCWRD land along the Las Vegas Wash from approximately 1,200 feet north of the AWT access road to approximately 200 feet south of the Monson Channel. The CCWRD Central Plant is located to the west of Hollywood Boulevard and the CCWRD AWT plant is located to the east. The AWT access road traverses the wash just west of the intersection of Hollywood Boulevard and the AWT access road. Downstream of the AWT access road the Central Plant Outfall and the AWT Plant Outfall connect to the wash from the west and east sides, respectively. Public lands are located north and west. Metropolitan Las Vegas is to the northwest.

Vegetation in the upland areas is dominated by tamarisk or salt cedar (*Tamarix* sp.), quailbush (*Atriplex lentiformis*), and perennial pepperweed (*Lepidium latifolium*). Small localized concentrations of introduced grasses occur in upland areas north of the Monson Channel. Small localized concentrations of common reed (*Phragmites australis*) and common cattail (*Typha latifolia*) occur west of the Wash and creosote bush scrub occurs with a few catclaw acacia east of the Wash. Vegetation along the Wash channel include common cattail, pale smartweed (*Polygonum lapathifolium*), common reed, giant reed (*Arundo donax*), cocklebur (*Xanthium strumarium*), sacred datura (*Datura meteloides*), and yellow nut sedge (*Cyperus esculentus*).

Waters of the United States in the project area includes approximately 9 acres of waters of the U.S. within the Las Vegas Wash channel and approximately 10 acres of adjacent wetlands. The total jurisdictional area impacted by the proposed project will be approximately 5.6 acres (See Figure 5). This includes permanent impacts to approximately 4.6 acres of the Las Vegas Wash

channel and approximately 0.7 acre of adjacent wetlands plus the 0.3 acre of adjacent wetlands previously impacted by the Central Plant outfall project.

The 0.3 acres of previous impacts to wetlands by the Central Plant Outfall project (USACE permit # 199925214) are being included with the impacts for this project because the one-acre mitigation site for the Central Plant Outfall project will be impacted. This site was used to mitigate for the impacts to waters of the U.S. resulting from construction of the Central Plant Outfall structure. However, this site was planted with desert riparian species and does not contain waters of the U.S. or adjacent wetlands. The vegetation on this site only covers approximately 0.5 acres and therefore; only 0.5 acres of desert riparian habitat will be impacted on this site.

Alternatives. As detailed below, the applicant provided information concerning project alternatives. Additional information concerning project alternatives may be available from the applicant or their agent. Other alternatives may develop during the review process for this permit application. All reasonable project alternatives, in particular those which may be less damaging to the aquatic environment, will be considered.

During the initial stages of the project, several different alternatives were considered for the channelization of the Las Vegas Wash. In total, seven different alternatives were analyzed to some degree. Three of the alternatives (Alternative A, B and the Proposed Alternative) were carried forward and analyzed with regard to the project scope. A description of Alternatives A and B are as follows:

Alternative A. Channelization Capacity = 2,000 cfs.

This alternative included increasing the bottom width of the low flow channel through the CCWRD property from 20 feet to 80 feet and the addition of (5) 10-foot by 6-foot RCBs at the AWT Access Road. The banks of the widened low flow channel would be riprap lined. A small channel would be excavated to connect the off-line culverts to the main low flow channel downstream of the AWT Access Road and the inlets to these culverts would be cleaned and cleared of debris.

Alternative B. Channelization Capacity = 4,500 cfs.

Alternative B includes all components of Alternative A except the low flow channel is widened from 20 to 150 feet downstream of the AWT Access Road plus additional facilities that include (8) 10-foot by 4-foot RCBs, a concrete channel upstream and parallel to the AWT Access Road and elevating the AWT Access Road approximately 2 feet. The additional culverts would be located where the existing dual 4-foot by 2-foot culverts are currently located. Approximately 900 feet of the AWT Access Road would be elevated to 1,662 feet. The existing concrete channel constructed with the Central Plant Outfall project would be extended to the additional 10-foot by 4-foot culverts and a concrete channel would be constructed from the existing low flow channel to the additional 10-foot by 4-foot culverts. The total length of the proposed concrete channel is approximately 1,000 feet. The existing dual 8-foot by 4-foot culverts under the AWT Access Road would be removed. A channel would also be constructed downstream of the additional 10-foot by 4-foot culverts to connect them to the widened Las Vegas Wash low flow channel.

Alternatives A and B provide a substantial increase in the capacity of the Las Vegas Wash low flow channel and will reduce annual maintenance requirements for the wash and the AWT Access Road, as well as improving emergency access across the wash between the Central and AWT Plants. However, these alternatives do not provide a significant reduction in the width of the 100-year floodplain. Therefore, they do not provide much of an increase in the area where security improvements could be placed within CCWRD property or an increase of available land for future plant expansion, and therefore, do meet the purpose and need of the proposed project.

However, the proposed project provides full conveyance of the 100-year flood flows through CCWRD property, significantly reduces the width of 100-year inundation, and would greatly increase the area that security improvements could be placed within the CCWRD property. This alternative would also increase the amount of land available for future expansion of CCWRD facilities, create all-weather access across the Las Vegas Wash, and greatly reduce annual maintenance requirements for the wash and AWT Access Road. Based upon the purpose and need of the project, the proposed project was selected.

Mitigation. The Corps requires that applicants consider and use all reasonable and practical measures to avoid and minimize impacts to aquatic resources. If the applicant is unable to avoid or minimize all impacts, the Corps may require compensatory mitigation. The applicant is proposing to create on-site mitigation wetlands. The compensatory mitigation proposed for the project includes the creation of wetlands and a pond within approximately 10 acres of upland area in the west side of the channel improvements. This area is currently densely vegetated with tamarisk. The tamarisk will be removed from the site and the site will be graded and recontoured. The mitigation area will include approximately 2 acres of open water surrounded by approximately 2 acres of wetlands and the remaining 6 acres will be revegetated with native riparian species.

The Southern Nevada Water Authority (SNWA) requested CCWRD to allow them to plant riparian vegetation adjacent to the channelization improvements within CCWRD property as part of the requirements for federal grant money they have received. The SNWA will be using approximately 28 acres of CCWRD property for restoration. Based on recent coordination with SNWA, it was decided that SNWA will pay for half of the CCWRD's wetland mitigation efforts associated with the Las Vegas Wash channelization project and the full cost of any additional riparian vegetation planting they wish to plant on CCWRD property. In addition, the SNWA will perform the native vegetation planting within both sites. The tamarisk surrounding the jurisdictional wetlands will be removed from this site. None of the wetland areas on the SNWA restoration site will be impacted. The SNWA is proposing to revegetate this area with native riparian species.

The total jurisdictional area impacted by the proposed project will be approximately 5.6 acres, which includes the 0.3 acre impacted by the Central Plant Outfall. Since the mitigation site is 10 acres, the mitigation ratio for the total 5.6 acres of impact will be nearly 2:1. However, 1 acre (0.7 acre of adjacent wetlands and 0.3 acre of adjacent wetlands impacted by the Central Plant Outfall project) are being impacted and, therefore, the 2 acres of created mitigation wetlands surrounding the pond will also have a mitigation ratio of 2:1. In addition, since the current vegetation within the mitigation site is tamarisk, the quality of habitat within the site will be increased with the replacement with native wetland and riparian species. The open water portion of the mitigation site will provide water for birds and wildlife in the area. The created mitigation habitat will also be of higher quality than that of the Central Plant Outfall mitigation.

OTHER GOVERNMENTAL AUTHORIZATIONS: Water quality certification or a waiver, as required under Section 401 of the Clean Water Act from the Nevada Division of Environmental Protection is required for this project. Protection (NDEP) will have to certify this project under Section 401 of the Clean Water Act. For more information on this water quality certification, contact Mr. Glen Gentry of NDEP, Bureau of Water Quality Planning, 333 West Nye Lane, Suite 138, Carson City, Nevada 89706-0851, telephone number (775) 687-4670, extension 3097.

HISTORIC PROPERTIES: The project site was previously surveyed for cultural resources during the preparation of the Systems Conveyance and Operations Program EIS. An archaeological inventory of the Effluent Interceptor pipeline was prepared and the analyses can be applied to channel improvements proposed in this application. Based upon the results of the archeological inventory, a determination of eligibility for listing on the National Register of Historic Places was made. No archaeological sites or historic properties were located within the proposed project site.

A Class III inventory was also conducted for the Clark County Sanitation District Central Plant Outfall project in 1999 (USACE Permit # 199925214). The area surveyed includes a portion of the proposed project and mitigation site for this project. No cultural resources were found during that survey.

ENDANGERED SPECIES: There are 4 federally listed bird species potentially occurring in this reach of the Las Vegas Wash. The southwestern willow flycatcher (*Empidonax traillii* extimus), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), Yuma clapper rail (*Rallus longirostris yumanensis*), and bald eagle (*Haliaeetus leucocephalus*) may be occasional migrants through the area. However, the Las Vegas Wash has become fragmented and degraded to levels beyond the constituent elements required to support the species. Critical habitat does not exist for any of the species. None of these species are expected to be impacted by the proposed channel improvements. Desert tortoises (*Gopherus agassizii*) are not expected to occur in the proposed project site. Construction associated with the proposed project will occur within and adjacent to the channel, which has unsuitable habitat to support a desert tortoise.

The project site is located within the area covered under the existing Multiple Species Habitat Conservation Plan (Clark County 2000), which authorizes the incidental take of desert tortoise, the southwestern willow flycatcher, and the yellow-billed cuckoo for non-federal projects. However, the Sacramento District will initiate consultation under Section 7 of the Endangered Species Act with the U.S. Fish and Wildlife Service for this project.

The above determinations are based on information provided by the applicant and our preliminary review.

EVALUATION FACTORS: The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the described activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the described activity, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the described activity will be considered, including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards,

floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, consideration of property ownership and, in general, the needs and welfare of the people. The activity's impact on the public interest will include application of the Section 404(b)(1) guidelines promulgated by the Administrator, Environmental Protection Agency (40 CFR Part 230).

The Corps is soliciting comments from the public, Federal, State, and local agencies and officials, Indian tribes, and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

SUBMITTING COMMENTS: Written comments, referencing Public Notice 200650219, must be submitted to the office listed below on or before October 15, 2006:

Steven W. Roberts, Project Manager
US Army Corps of Engineers, Sacramento District
St. George Regulatory Office
321 North Mall Drive, Suite L-101
St. George, Utah 84790-7310
Email: steven.w.roberts@usace.army.mil

The Corps is particularly interested in receiving comments related to the proposal's probable impacts on the affected aquatic environment and the secondary and cumulative effects. Anyone may request, in writing, that a public hearing be held to consider this application. Requests shall specifically state, with particularity, the reason(s) for holding a public hearing. If the Corps determines that the information received in response to this notice is inadequate for thorough evaluation, a public hearing may be warranted. If a public hearing is warranted, interested parties will be notified of the time, date, and location. Please note that all comment letters received are subject to release to the public through the Freedom of Information Act. If you have questions or need additional information please contact the applicant; the CCWRD's agent, Matt Baird, Associate Vice President, PBS&J, 220 corporate Circle, Suite 100, Henderson NV 89074, telephone 702-263-7275, or the Corps' project manager Steven W. Roberts, 435-986-3979, steven.w.roberts@usace.army.mil.

Attachments: # drawings